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Implementation of the Local Competition)
Provisions in the Telecommunications Act)
of 1996)

CC Docket No. 96-98

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EXECUTIVE SUMMARY

OPC believes that the Commission's efforts in this rulemaking should ensure that competition will benefit *all* ratepayers in the United States. Thus far, the emergence of local competition has benefitted mostly business customers, and large business customers at that. To be sure, just as falling objects are not to be blamed for following the laws of gravity, competitors are not to be blamed for this pattern of competitive entry. It is policy makers and regulations that created the incentive structure for competitive entry. Now, with the passage of the Act of 1996, policy makers have the chance *and* tools to overhaul this incentive structure.

To ensure maximum benefits from competition, OPC urges the Commission to promulgate rules that give potential entrants the opportunity to operate *viably* in all market segments and all geographic areas. Those rules should be detailed and explicit so as to establish a uniform and national telecommunication policy, consistent with the intent of the Act and the needs of new entrants. OPC's recommendation is based on the recognition that regulation, even at its best, can never induce incumbent LECs to be as cost efficient, innovative and responsive to customers' needs as a fierce competitor could. The objective, therefore, should be to cultivate competition.

To this purpose, the Commission should establish clear, precise and sound pricing principles. Specifically, the Commission should order that all rates determined in accordance with the pricing standards of section 252(d)(1) and (2) be set *at* their underlying TSLRICs. The Commission should reject the incessant calls for "contributions" over TSLRIC. No additional contributions are needed. First, incumbent LECs are already recovering all their joint, common and overhead costs. Second, TSLRIC captures *any* increases in costs, including common and overhead, associated with the *new* service offerings addressed by sections 251 and 252. Third, TSLRIC provides for a reasonable return on investments. Moreover, any mark-ups above TSLRIC will: (a) handicap competitors; and (b) permanently insulate certain costs from competitive pressures. And as all of us know, the burdens of recovering uneconomic costs, not subject to competitive pressures, will tend to shift onto the shoulders of captive ratepayers.

Second, the Commission should establish clear, precise and sound costing principles. As already indicated, OPC believes that TSLRIC is the appropriate cost measure. Most importantly, the Commission should not leave the definition of the term "cost" an open-ended matter. The Commission itself already noted proposals, such as Ameritech's, to define the term "cost" as incorporating LRIC, overhead costs and residual, non-economic, costs. This is, of course, fully distributed costing, intended to preserve the revenue stream of the incumbent LEC. The Act of 1996, however, explicitly rejects rate-based costing and pricing practices (see, section 252(d)(1).) One might wonder how much more explicit statutory language should be before the notion finally sinks in: incumbent LECs are *not* entitled to forever be made "whole." To be sure, competition and provisions that seek to keep the incumbent LEC "whole" are fundamentally incompatible. One must choose either one or the other. *Congress chose competition.*

Third, the Commission should ensure that market entry and interconnection arrangements are not made conditional on a new entrant's ability to "clone" itself after incumbent LECs. Build-out requirements and "play or pay" type of proposals, in spite of any good intentions, will hurt residential and rural ratepayers. Put more harshly, they are barriers-to-entry and Bell-fare proposals. Chrysler Corporation would go broke if it were forced to have productive capacity on hand to serve much more than its current market share. Chrysler would also go broke if it had to serve the same customer types as the market leader, GM, and in the same proportions. Why would anyone think that very similar requirements could possibly promote competition in telecommunications markets?

For certain things in life one can only issue invitations, one cannot force them -- competition is one of those things. If policy makers want competition also in residential and rural markets, then this objective is best achieved by making it commercially viable for competitors to serve those markets -- build-out requirements and "play or pay" are not attractive invitations. To the extent that continued subsidies for certain areas are necessary, the Commission should ensure that subsidies flow through a competitively neutral universal service fund, to which all carriers contribute and from which all carriers may draw. Any issues related to universals service, however, should be resolved in CC Docket No. 96-45.

Paralleling the Commission's efforts to promote competition, however, should be efforts to strengthen protections against rate-increases for captive ratepayers. Surely, as incumbent LECs begin to experience competition for certain types of customers and services, state commission's will hear requests for rate-rebalancing. The Commission should recognize, however, that rate-rebalancing is but a gentler name for Ramsey pricing. That is, when the going gets tough, companies most certainly will seek to shift the burdens of recovering joint, common and uneconomic costs, onto ratepayers whose demand is most inelastic -- predictably, those will be residential and rural ratepayers. Though the argument will be made that residential and rural customers receive subsidized services, the Commission should erect a solid burden-of-proof requirement for those making such claims. Most importantly, any showing of subsidization should be based on true economic costs, TSLRIC, and not on embedded costs. The results may be surprising. For example, the Washington Commission just found that US West's residential services were not subsidized. Also, Ameritech Illinois has already revealed that about 20 percent of its costs are uneconomic costs (see comments on paragraph 144.)

Yet, if it is found that certain customers and certain areas require subsidies, then such a finding is still no argument for rate-rebalancing *per se*. First, the Commission's rules should be premised on the notion that all ratepayers ought to benefit from competition. Almost categorically, therefore, the Commission should prohibit rate-rebalancing. Second, if rates are demonstrated to be below incremental costs, then a competitively neutral funding mechanism can accomodate such situations. In no event, however, should public policy create conditions that leave captive customers without protection from either competition or regulation. On issues of ratepayer protection, the Commission should stand firm.

Introduction

The Texas Office of Public Utility Counsel (OPC) represents residential and small business consumers in telephone proceedings before the Texas Public Utility Commission, the Federal Communications Commission and in various state and federal courts. OPC submits these comments in response to the Notice of Proposed Rulemaking on the Implementation of the Local Competition Provisions in the Telecommunications Act of 1996. For ease of reference, these comments follow the outline as presented in the Notice of Proposed Rulemaking

II. PROVISIONS OF SECTION 251

B. Obligations Imposed by Section 251(c) on "Incumbent LECs"

2. Interconnection, Collocation, and Unbundled Elements

a. Interconnection

[49, 50] OPC agrees with the Commission's tentative conclusion that uniform interconnection rules would facilitate entry by competitors in multiple states by removing the need to comply with a multiplicity of state variations in technical and procedural requirements.

[51] In establishing uniform guidelines, the Commission should assume state-of-the-art technologies. Special provisions should cover for instances where incumbent LECs do not have digital switches or otherwise use outmoded equipment.

[53] As discussed in OPC's comments on paragraphs 232, and 233, the two pricing standards, in essence, are the same.

(1) Technically Feasible Points of Interconnection

[56] The Commission should generally be suspicious of claims that interconnection for unbundled elements or exchange of local traffic will harm the “integrity” of the incumbent LEC’s network.

Thousands of networks are already interconnected in the United States. The networks of IXC’s, LEC’s, Cellular Carriers, and others, are currently connected and they are handing-off traffic to one another on a daily basis. Engineers know how to do these things and claims about harm to the “integrity” of the network will most likely stem from anti-competitive considerations.

As an example of how difficult it may be to force an intransigent LEC to interconnect at a technically feasible point with a smaller competitor, the Commission may consider the experience of US Signal in Michigan. The Michigan Commission had to come to the aid of US Signal to ensure that US Signal was not forced into costly collocation arrangements by Ameritech:

To avoid further disputes regarding the tariff, the Commission orders Ameritech Michigan to provide City Signal unbundled loops on other than a collocation basis. Failure to comply with this order may result in the imposition of sanctions against Ameritech Michigan.¹

¹Order Clarifying Prior Order, Michigan Public Service Commission, case No. U-10647. October 3, 1995.

[57 through 59] *OPC agrees with the Commission's conclusions that "interconnection at a particular point will be considered technically feasible" if an incumbent LEC has provided interconnection to other carriers at that point. The Commission should examine existing EAS arrangements. It will show what interconnection arrangements are possible if LECs decide to actually cooperate with one another.*

To assist the Commission in its request for possible interconnection arrangements, OPC provides an example of an actual interconnection arrangement between Ameritech Michigan and independent telephone companies. Ameritech uses identical arrangements in Wisconsin to interconnect with independent LECs. The Commission should consider that EAS traffic is local in nature and the arrangements, therefore, are applicable to the issue at hand; interconnection arrangements for local traffic. Ameritech and some of the independent LECs provide Extended Area Service under the following arrangement:²

- * Ameritech and the independent LEC are physically interconnected by means of interexchange trunks designated for use of extended area service.
- * Ameritech and the independent LEC are each responsible for furnishing 50% of the trunking facilities between the companies. Trunking facilities consist of wire facilities, such as pairs of copper wires, and carrier facilities, such as voice repeater. Provisions exist for instances where one of the companies falls short of providing its 50% share.
- * Ameritech and the independent LEC each provide and are responsible for the central office switching equipment in its exchanges, including trunk equipment for terminating interexchange trunks used for extended area service, and assume all costs for such equipment.

²A more detailed description of the EAS arrangement between Ameritech Michigan and the independent LECs in Michigan is found in Ameritech's response to the Michigan Staff's First Discovery Request in Case No. U-10647, STMB0003.

- * The type and method of operation of the incoming trunks to each interconnecting company is determined on the basis of a mutual agreement between Ameritech and the independent LEC.
- * Ameritech and the independent LEC each *retain the charges* to its end users for the extended area service traffic. The only settlements between Ameritech and the independent LEC is for trunking facilities in the event that either company falls short of furnishing 50% of those facilities.

A number of points are worth observing. First, the costs of trunking are shared on some form of a meetpoint arrangement, where, in essence, each carrier assumes about 50 percent of the trunking costs. Second, companies are not artificially forced into expensive collocation arrangements. Instead, each carrier assumes the responsibility for furnishing the necessary equipment to terminate the incoming trunks of the other carrier. Last, the carriers do not charge one another for the termination of traffic: *i.e.*, it is a “bill and keep” arrangement.

(2) Just, Reasonable, and Nondiscriminatory Interconnection

[60 through 62] *Yes, the Commission should adopt national standards for the terms and conditions for interconnection. Meet point arrangements are technically feasible and efficient. (For alternative arrangements and the economic terms of the arrangements, see also discussion of paragraph 57 through 59, and 230 through 242, on reciprocal compensation arrangements.)*

The merit of meet-point arrangements is that it does not sanctify the existing architecture of the incumbent LECs as the “appropriate” architecture. For example, the existing networks of the LECs deploy a hierarchy of switches. Class-5 and upwards, to aggregate their traffic. The networks of new entrants, however, will most likely be less hierarchical. In general, one

should expect new entrants to deploy longer loops and fewer switching facilities. In any event, it is unlikely that the new entrants will emulate the bifurcation between end-office and tandem switches that is so typical for the networks of the incumbent LECs. In view of this, interconnection arrangements that have separate charges for end-office and tandem termination, such as adopted by the Illinois Commerce Commission³, invariably handicap new entrants as they will have switches that look like end-office switches (even though these switches will also perform tandem office functions.) That is, new entrants will often pay tandem charges but receive compensation based on the lower end-office charges. Unintentionally, therefore, compensation arrangements that distinguish between end-office and tandem termination, such as by the Illinois Commerce Commission, result *de facto* in asymmetric rates for reciprocal compensation. Meet-point arrangements, by contrast, do not penalize new entrants for having more centralized (in terms of switching) networks.

(3) Interconnection that is Equal in Quality

[63] *The Commission should set clear guidelines to prevent incumbent LECs from forcing new entrants into either inferior or unnecessarily expensive collocation arrangements.*

The "equal in quality" provisions should protect the new entrants against two types of dangers. First the provisions should ensure that new entrants do not receive interconnection that degrades the quality of service that they will be able to offer their end-users. Second, the

³*Consolidated CFP proceedings*, Docket No. 94-0096, et al., Illinois Commerce Commission, Order, April 7, 1995, p.98.

provisions should ensure that new entrants are not forced into expensive but unnecessary collocation arrangements. For an example of the latter, see OPC's comments on paragraph 56.

(4) Relationship Between Interconnection and Other Obligations Under the 1996 Act

b. Collocation

[64 through 73] *OPC supports the Commission's tentative conclusions that it has the authority to order physical, virtual and meet-point interconnection arrangements.*

The Commission's conclusions are supported by a literal reading of section 251(c)(6) and 251(d) and by the language of the Joint Explanatory Statement.

OPC would like to note, however, that the language in section 251(c)(6), which exempts incumbent LECs from offering physical collocation if it is not practical or technically infeasible, is problematic. The incumbent LECs are quick to reject requests for physical interconnection (either in the central office, or elsewhere, such as at a digital loop carrier system in the local loop). As evidenced by the US Signal "battle" with Ameritech Michigan (see, OPC comments on paragraph 56), even relatively simple type of arrangements are sometimes considered impractical or technically infeasible by the incumbent LECs. To ensure new entrants the full benefit from the provisions in section 251(c)(6), the Commission should issue strong guidelines that make it difficult for incumbent LECs to refuse requests for interconnection when these requests fall outside the narrow parameters of the incumbent LECs' currently tariffed services.

Further, the Commission should take a broad view of interconnection, because the term really pertains to any type of physical connection needed to: (a) make the unbundled network elements operational for new entrants; or (b) allow traffic or signals to pass from one network to another. With respect to the former, the Commission should consider allowing new entrants to interconnect to the digital loop carrier systems (SLC huts) out in the local loop. This type of interconnection would achieve a loop unbundling into sub-elements (feeder and distribution portions) that potentially could afford new entrants greater efficiencies. Specifically, it would eliminate the need for new entrants to aggregate loops at the central office. Instead, they could aggregate the unbundled loops at the SLC-hut, which may be much closer to their own switching facilities. As PCS technologies mature, they could be used to by-pass the analog distribution systems, while still using the digital loop carrier systems of the local loop. In short, this type of sub-loop unbundling (by means of allowing interconnection at the SLC-hut) would promote a natural evolution of the public switched network toward state-of-the-art technologies. (For a further discussion of the sub-loop unbundling see comments on paragraph 97.)

Further, OPC would like to note that the charges that apply for interconnection arrangements are perhaps as important as the mode of interconnection itself. As the Commission is well aware, the current collocation tariffs of the incumbent LECs are laden with "contributions." As will be discussed in more detail in the pertinent sections below, interconnection and network elements should be priced at cost. After all, it does new entrants

little good to be able to interconnect, if the charges for such interconnection were so high as to effectively preclude competition.

c. Unbundled Network Elements

[74 through 82] *The Commission should establish a minimum set of network elements, beyond those listed in the 1996 Act, that incumbent LECs should unbundle for any requesting carrier.*

The obvious problem faced by the Commission is how to prescribe a minimal number of network elements without creating a static situation which may quickly become obsolete and unworkable. To resolve this problem, the Commission should refrain from specifying network elements in rigid technological terms. Rather, certain network elements should be identified in general functional terms. This approach would best create a framework that may evolve as technologies or the needs of interconnectors evolve

The Commission is quite right in its observation that it should go beyond the mere identification of a minimum set of network elements. Indeed, it will be of critical importance that the Commission also establish the procedures and other requirements that would govern unbundling, such as provisioning and servicing of the elements, etc.

The Commission should also provide strong language on the right of new entrants to *combine* network elements in whichever way is needed for those new entrants to provide service. First, the usefulness of unbundling is greatly enhanced by allowing new entrants to combine network elements in any technically and commercially feasible fashion. Clearly, the usefulness of unbundling policies is diminished if somehow new entrants were artificially limited in the

manner in which they could combine unbundled elements.⁴ Second, Section 251(c)(3) explicitly states: “an incumbent local exchange carrier shall provide such unbundled network elements in a manner that allows requesting carriers to combine such elements in order to provide such telecommunications services.” While this language in itself should provide new entrants with ample protection against obstructionist tactics, OPC fears that as competition evolves and competitors explore various ways in which networks can be interconnected that incumbent LECs will seek to limit such creative uses of their networks by competitors.

- (1) Network Elements
- (2) Access to Network Elements
- (3) Specific Unbundling Proposals

[83 through 97] *Telecommunications networks are modular. This means that network elements can be defined at various levels of aggregation, depending on the needs of the market. Incumbent LECs should not prohibit competitors from combining network elements to provide services. The Commission should order a commercially viable method for interconnectors to aggregate unbundled loops at the central office. Current collocation requirements make unbundled loops prohibitively expensive.*

Obviously, there is no single best way to deconstruct a network into its constituent components. A telecommunications network is highly modular and consists of many pieces of equipment, each of which could be identified as a network element; yet, they must all be perfectly integrated for the network to operate reliably. Many different groupings of pieces of

⁴Currently, it is not uncommon for incumbent LECs to prohibit the combining of unbundled network elements by new entrants to provide service. For example, Ameritech Illinois *prohibits* competitors from offering local exchange services by means of combining Ameritech’s unbundled loops and Ameritech’s unbundled ports. The Commission should explicitly declare such prohibitions a violation of the Act of 1996.

equipment into “network elements” are possible. OPC recommends that one of the guiding principles should be market demand for particular network elements. In other words, if a carrier (a competitor) requests a certain type of unbundling and if the carrier can make a minimal showing that it will indeed use the unbundled elements, then the request should constitute a demonstration that unbundling is required.⁵

With respect to the issue of whether the loop is one single element or consists of several sub-elements, the Commission should consider the following. The loop facilities, the bundled transmission path from the central office main distribution cross-connect to the subscriber's premises, are not monolithic: further unbundling is both possible and in the interest of local exchange competition.

As illustrated in the figure below, there is a fundamental division in the outside plant between feeder and distribution plant. In a sense, the loop network resembles the structure of a leaf. The feeder plant is represented by the stem of the leaf. It is composed of a high capacity transmission medium; either large cables incorporating many individual wire pairs, or fiber optic or coaxial cable facilities that carry individual subscriber pairs via dedicated digital channels. The distribution plant is analogous to the veins of the leaf. Smaller wire cables are attached to the end of the feeder plant, and run down streets, roads and alleyways

⁵Incumbent LECs often complain that there is no demand for certain unbundled elements and that they are forced to expand resources on tariffing elements that no carrier has any use for.

to interface with a drop wire that terminates at a network interface at the subscriber's premises.

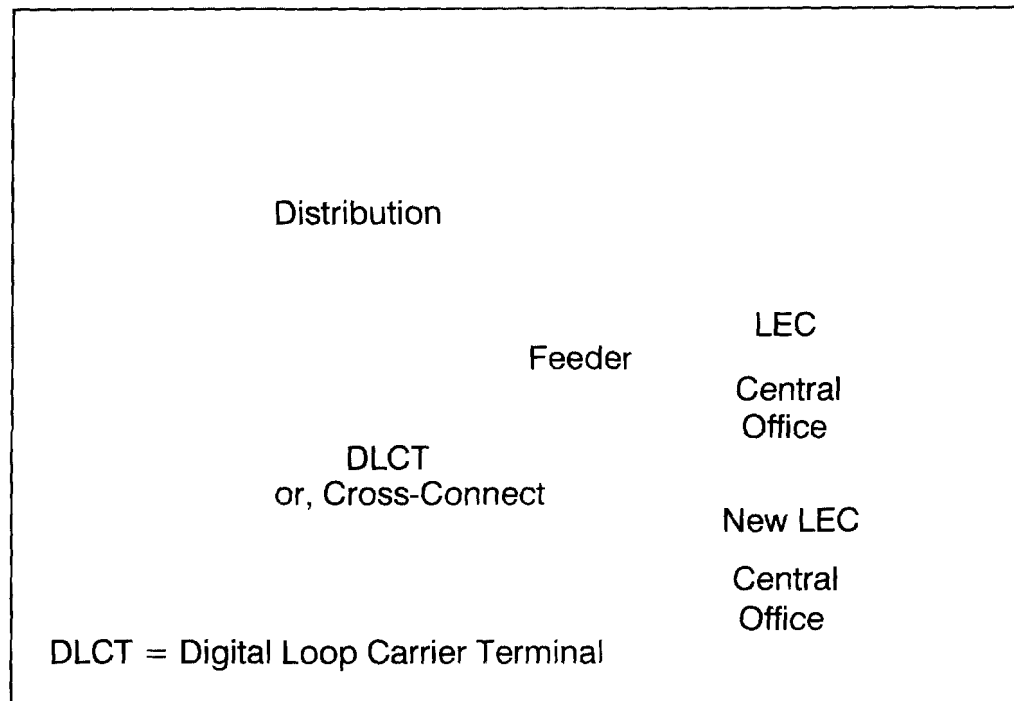


Figure 3: The digital loop carrier terminal (DLCT) is a natural point of interface for new entrants to interconnect to distribution or feeder facilities.

As shown in the figure above, the distribution and feeder facilities can technically be offered on an unbundled basis. This figure also shows that a new entrant can interface at the digital loop carrier terminal, in effect, substituting its own feeder facilities for those of the incumbent. This capability, to interface, not at the central office, but at the natural point of interface between distribution and feeder facilities, may offer new entrants substantial cost savings. For example, cost savings are possible when the switching facilities or remote switching facilities of new entrants are closer to the DLCT than they are to the

incumbent's central office. In this case, new entrants could economize on the transport costs required for loop connectivity to their own switching facilities. Another example concerns Personal Communications Service ("PCS") technology, which essentially provides an analog of the distribution portion of the subscriber loop in the traditional telephone network. It may be attractive to a PCS provider to locate cell sites nearby the subscriber carrier terminal or cross-connect serving a customer serving area, and interconnect with the LEC's network at the carrier terminal or cross-connect. If the PCS provider were to purchase unbundled feeder channels for the connection from the carrier terminal or cross-connect to the central office, the PCS provider could both contribute to and benefit from the economies of scale that pertain to the cost of the feeder portion of the loop. In any event, to further facilitate the development of local exchange competition, the Commission should order the incumbent LEC, upon a bonafide request, to tariff distribution and feeder facilities on an unbundled basis.

Furthermore, the availability of unbundled loops at economic rates does not in and of itself ensure that new entrants can put together an economically viable local exchange product. To provide dial-tone on unbundled loops, the new entrant needs to construct or lease transport facilities out to the central office where the incumbent aggregates the loops. This means that if a new entrant wants to offer local access and transport area ("LATA") wide service, then it may have to construct, or lease, transport facilities to a large number of LEC central offices. The construction or lease costs of this may simply be prohibitive.

Therefore, to facilitate competitive entry, the Commission should order incumbent LECs to offer a transport product for unbundled loops. This transport product, however, should not be an existing, already tariffed LEC product, such as a private line or switched access product. Instead, it is important that the LECs offer *only* those functionalities in this product that are needed to establish loop-connectivity. Specifically, this product should allow for remote monitoring of the line. Most importantly, the transport product should be structured and priced so as to make the use of unbundled loops commercially viable.⁶

(b) Local Switching Capability

[98 through 103] *Unbundled ports are often simple cross-connects and should not pass for unbundled local switching. The Commission should model its unbundled local switching element after the Illinois initiative on unbundled switching (switch platform). As with the other unbundled facilities, the purchaser of the unbundled local switching elements should be entitled to all the revenues generated over the facility, including switched access revenues associated with originating and terminating long distance traffic.*

Unbundled ports, offered as a result of loop and port unbundling, are often simple cross-connects and should not pass for unbundled local switching, to which competitors are entitled under the Act of 1996. For example, the unbundled ports currently offered by Ameritech in Illinois explicitly exclude the switching functionality -- which should constitute the essence of unbundled switching -- associated with an end-office switch facility. While the service description of unbundled ports in Ameritech's tariffs is quite lengthy, the

⁶Current collocation requirements, invariably, make the use of unbundled loops prohibitively expensive.

following portion of that description clearly indicates that "switching" is a separate and distinct functionality to which the port gives access but which is *not* part of the unbundled port product itself. Specifically, the tariff provides the following:

For functions associated with each port, see the appropriate sections of the tariff describing the associated telecommunications service (as indicated in parentheses). The port provides the service functionality at the point of cross-connection to a customer's or other provider's facility.⁷

Indeed, because the unbundled port facilities do *not* include switching, and therefore are not a useful standalone service -- according to Ameritech, the company has tariffed certain unbundled ports at a rate of \$0.00. Specifically, Ameritech has priced its Residence Exchange Ports in Access Area B and C at \$0.00.⁸

(c) Local Transport and Special Access

[104 through 106] *The Commission has ample experience with unbundling local transport and special access services. However, the Commission should take care that these elements are priced at cost, consistent with the principles discussed below. Further, the Commission should structure the unbundled transport products so as to allow competitors to offer tandem switching to IXCs in competition with the incumbent LEC.*

⁷ILL.C.C. No. 5, Part 2-Section 26, 2nd Revised page 4. Paragraph 1.2(B).

⁸ILL.C.C. No. 5, Part 2-Section 26, 2nd Revised page 4. Paragraph 1.3(A)(2).

d. Pricing of Interconnection, Collocation, and Unbundled Network Elements

(1) Commission's Authority to Set Pricing principles

[117,118, 119] *Clearly defined national pricing policies would facilitate competitive entry.*

OPC agrees that the Commission has the statutory authority to: (a) define what are "wholesale rates" for purposes of resale; (b) define what is meant by "reciprocal compensation arrangements" for transport and termination of telecommunications; and c) establish pricing principles and further explain the provisions of section 252(d). To the extent that Congress in the enactment of the Act of 1996 intended to establish a national telecommunications policy, the Commission's understanding of its authority under the Act seems to be consistent with this intent.

Furthermore, OPC agrees with the Commission that "national pricing principles would be likely to increase the predictability of rates, and facilitate negotiations, arbitration, and review of agreements between incumbent LECs and competitive providers." Clearly, the greater the degree of uncertainty faced by potential local exchange competitors about regulatory policies across the various jurisdictions, the more difficult it will be for competitors to develop viable entry strategies and the greater might be the required returns expected by investors (after all, the traditional risk-return trade-off that underlies financial markets dictates that investors expect higher returns in riskier environments.) The Commission is quite right, therefore, to observe that the absence of consistent pricing policies could constitute a barrier-to-entry.

[120] *Pricing principles should be based on a measure of unseparated cost.*

OPC agrees with the Commission's conclusion that any pricing principles to be promulgated by the Commission under sections 251 and 252 should be based on some measure of unseparated costs. First, as competitive telecommunications markets develop, arbitrary -- non-cost--based -- price differences will not be sustainable; this would be particularly true for any jurisdictional differences in prices. For this reason alone it behooves the Commission and industry participants to establish pricing principles based on economically relevant costing principles, which, by definition, are unseparated in nature. Second, as will be discussed in more detail below, the statutory language of the Act (sections 251 and 252) makes no reference to jurisdictional allocations of cost. The development of different pricing policies for state and interstate jurisdictions, therefore, would be inconsistent with the intent of the Act.

This is not to say, however, that jurisdictional concerns will not remain of paramount importance in the further regulation of the incumbent LECs. Indeed, one of OPC's overriding concerns in regard to the Act of 1996, and the developments it may spur in telecommunications markets, is that the incumbent LECs will seek to recover any lost revenues -- or even forgone revenues they might have earned in the absence of competitive entry -- from captive ratepayers. In view of this, OPC urges the Commission to adopt and maintain policies that would prevent cost shifting by incumbent LECs, or activities of incumbent LECs to recover lost revenues from ratepayers that, for all practical purposes, do not yet, and may not for a long time, have access to alternative providers.

(2) Statutory Language

[121, 122] Rates should be determined using an economic measure of cost, such as TSLRIC, and apply non-discriminatorily to all competitors and the incumbent LEC itself. The cost of money, included in TSLRIC, is a reasonable profit. Pricing principles should apply equally to interconnection and unbundled network elements.

To create a regulatory environment of predictability and certainty for potential competitors that seek to operate nationwide, the Commission should promulgate clear, precise and sound pricing policies, consistent with the provision of the Act of 96.

Sections 251(c)(2)(D), 251(c)(3), 251(c)(6) and 252(d)(1) all provide pricing guidelines that include the provision that just and reasonable rates shall be nondiscriminatory. To the extent that the services, to which these sections apply, use generally the same network functionalities, the Commission should determine consistent pricing standards: if pricing standards vary by section, then the resulting rates would invariably be discriminatory, thus violating the Act itself. Further, because the most explicit language on pricing is provided in section 252(d)(1), this provision should be most prominent in guiding the Commission to consistent and coherent pricing policies.

Also, because interconnection arrangements utilize the same network elements as those to be offered on an unbundled basis, the provisions of the Act require that the same pricing principles apply to interconnection and unbundled network elements equally.

The language of section 252(d)(1) should be interpreted as follows. First, the term “based on the cost [...] of providing the interconnection or network element”⁹ indicates that rates should be based on a relevant measure of the incremental cost of providing interconnection or network elements. The most appropriate measure of economic cost is, in principle, LRIC. This concept is appropriately defined by the Commission as: “the full amount of incremental investment and expenses which would be incurred by reason of furnishing additional quantities of service, whether in a new or an existing service category.” The Commission added that LRIC should “determine prospectively the effect of total costs, including the effect on common costs, ... of adding units of service.”¹⁰ LRIC, as defined by the Commission, is an appropriate measure of cost, *provided* that the increment of output for which costs are determined is the *total* level of output for the service or unbundled elements. This measure of cost, LRIC determined over the total range of output, is often referred to in the industry as TSLRIC.¹¹ (A more detailed discussion of TSLRIC is provided in the discussions of paragraphs 126 through 133.)

⁹1996 Act, Section 252(d)(1)(A)(i).

¹⁰*American Telephone & Telegraph Co.*, 55 FCC 2d 224, 231 n. 18 (1975), cited in Commission NPRM paragraph 126.

¹¹This definition of TSLRIC is consistent with the one discussed by Baumol and Sidak. See Baumol and Sidak, *Toward Competition in Local Telephony*, MIT Press, p. 57.

Second, the term “nondiscriminatory”¹² indicates that the rates should apply equally to all that purchase interconnection or network elements. Most importantly, however, the nondiscrimination provision should also apply to the incumbent LEC itself, as provider of interconnection and unbundled elements. Clearly, the non-discrimination protections are virtually useless if they do not provide protection against favorable treatment for the most important competitor in the industry, the incumbent LEC. In effect, therefore, the non-discrimination provisions should be read as imputation requirements.

Third, the term “may include a reasonable profit”¹³ indicates that unreasonable profits are not permitted. Given that cost should be “determined without reference to a rate-of-return or other rate-based proceeding” (252(d)(1)(A)(i)) “reasonable profit” must be read to mean a profit sufficient for the company to cover its cost of money. To be sure, the cost of money is all the profit any company would ever need. Indeed, any profits in *excess* of the cost of money would necessarily result in “unreasonable” profits, which violates the provision of the Act of 1996.

The argument that a company needs to earn mark-ups over and above the cost of money to cover joint, common and shared costs,¹⁴ is made moot if the Commission adopts an

¹²1996 Act, Section 252(d)(1)(A)(ii).

¹³1996 Act, Section 252(d)(1)(B).

¹⁴See discussion of the Act of 1996 in testimony of Dr. D. J. Aron, on behalf of Ameritech Illinois. Dr. Aron states: “Contribution over LRSIC is necessary for a firm to cover all its costs.” ICC Docket No. 95-0296, Ameritech, Ex. 5.0, p.3.

appropriate cost standard, TSLRIC, for setting rates for interconnection and network elements. First, the incumbent LECs, presumably, are already recovering their current joint, common, and shared costs. Second, TSLRIC-based rates would capture *any* effects on common and other overhead costs. In sum, there simply is no need for any unspecified “contributions” above the cost of money if current rates are compensatory and new rates are set *at* TSLRIC.

Last, the Commission should note that any contributions over and above the cost of money are likely to hurt the further development of local exchange competition. Mark-ups raise the cost of doing business for new entrants and provide incumbent LECs with a source for anti-competitive mischief. Gratuitous contributions will also permanently insulate certain costs of the incumbent LEC from competitive pressures, thus permanently limiting end-user benefits of competition.

(3) Rate Levels

[123] *Section 252(d)(1) precludes traditional cost-of-service regulation, but contemplates a forward-looking cost methodology, such as LRIC.*

(a) LRIC-Based Pricing Methodology

[126] *The Commission’s definition of LRIC is appropriate, provided that the increment of output for which cost are determined is prescribed to be total service (or network element) output.*

The Commission’s definition of LRIC (as provided in paragraph 126) is a generic definition that correctly indicates the required forward-looking and least cost nature of incremental cost studies. As such, the Commission’s definition is consistent with the traditional

definition of TSLRIC (or long run service incremental costs (LRSIC) as used in some jurisdictions, such as Illinois), provided that the relevant increment of output for which cost are to be determined is total service (or network element) output. At a minimum, the price floor established by the incremental costs studies should prevent cross-subsidization of the service or network element by other services of network elements. Price floors based on incremental costs for total service output, TSLRIC, provide such protection.

By contrast, incremental cost studies calculated over smaller, subsets, of output may very well result in price floors that would cause a company to under-recover all costs of offering a service or network element. It is true that companies in competitive markets may set prices based on short run marginal costs. Yet, this type of pricing (and costing) is not appropriate for the purposes of establishing prices for essential inputs offered by the incumbent LECs and to be used by dependent competitors, which is the situation at hand.

The Commission asked for definitions of a number of cost concepts. OPC provides the following:

LRIC: The full amount of incremental investment and expenses which would be incurred by reason of furnishing additional quantities of service, in the long run, and using least cost technologies.

TSLRIC: The same as LRIC, provided that the "additional quantities of service" are specified as the total output for the service (or network elements) This term is equivalent to LRSIC.

Forward-looking cost: Cost determined on the basis of state-of-the-art, least cost, but currently available technologies, because these reflect the true social costs. (Forward-looking costs stand in contrast to embedded costs, which are based on the actually used and useful technologies.)

Joint cost: Costs, incurred in the provision of two or more services, that are not captured in the incremental costs of each service individually when the services are produced in *fixed* proportions.

Common cost: Costs, incurred in the provision of two or more services, that are not captured in the incremental costs of each service individually when the services can be produced in *variable* proportions.

Shared cost: Generic term for costs that are shared between two or more services and that are not captured in the incremental costs of each service individually. For example, joint and common costs.

Stand-alone cost: The total costs to a company of offering a service assuming that the company offers *no* other services. The stand-alone costs should be forward-looking.

Embedded cost: The costs that a company actually has on the “books,” subject to used-and-useful adjustments.

Fully distributed cost (FDC): Cost based on an allocation of joint and common costs, using a variety of possible allocators, such as minutes-of-use, direct costs, etc. Typically, such allocators are used when true cost-causation can not be identified.

Overheads: Very general costs associated with running the firm that cannot be assigned to specific groups of services. Strictly speaking, overhead costs are the common costs of all services offered by a firm.

Contribution: Mark-ups over and above the cost-of-money included in LRIC studies. Traditionally, “contribution” has been justified as necessary to cover incumbent LECs’ shared costs and to keep the companies “whole.”

Residual cost: The discrepancy between a company’s embedded costs and the cost calculated based on a TSLRIC basis, including all shared costs. This cost is a measure of embedded inefficiencies.